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## WHAT IS CLAIMED IS:

1. An electrolyte composition comprising: a molten salt represented by any of the following general formulae (1), (2) and (3); a polymer prepared by a reaction between an electrophile having at least two unsaturated bonds polarized by an electron-withdrawing group and a nucleophile having a plurality of nucleophilic groups; and a metal salt containing a Group IA metal ion or a Group IIA metal ion.

$$\begin{pmatrix}
Q_{y1} \\
N^{+} \\
R_{y1}
\end{pmatrix} X^{-} \dots (1)$$

$$R_{y5} - A_{y1}^{+} + R_{y3} \qquad X^{-} \qquad (2)$$

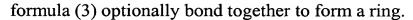
$$R_{y11} \xrightarrow{N_{+}} R_{y8} \qquad X \qquad ... (3)$$

$$R_{y10} R_{y9}$$

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In the general formulae (1), (2) and (3),  $Q_{y1}$  represents an atomic group forming an aromatic cation having a 5- or 6-membered ring structure with the nitrogen atom,  $A_{y1}$  represents a nitrogen atom or a phosphorus atom,  $R_{y1}$  to  $R_{y11}$  independently represent a substituted or unsubstituted alkyl group or a substituted or unsubstituted alkenyl group,  $X^-$  represents an anion, two or more of  $R_{y2}$  to  $R_{y5}$  in the general formula (2) optionally bond together to form a non-aromatic ring containing  $A_{y1}$ , and two or more of  $R_{y6}$  to  $R_{y11}$  in the general



- 2. The electrolyte composition according to claim 1, wherein said  $Q_{y1}$  is composed of atoms selected from the group consisting of carbon, hydrogen, nitrogen, oxygen and sulfur atoms.
- 5 3. The electrolyte composition according to claim 1, wherein said aromatic cation formed by said Q is an imidazolium cation or a pyridinium cation.
  - 4. The electrolyte composition according to claim 1, wherein said electron-withdrawing group is selected from the group consisting of a sulfonyl group, a cyano group and a carbonyl group.
  - 5. The electrolyte composition according to claim 1, wherein said nucleophilic groups are selected from the group consisting of -NH<sub>2</sub>, -SH, -S<sup>-</sup>, -SO<sub>2</sub>H and -SO<sub>2</sub><sup>-</sup>.
  - 6. A non-aqueous electrolyte secondary cell comprising the electrolyte composition recited in claim 1.